

NOEMACHEILUS MENONI, A NEW SPECIES OF FISH FROM MALAPPARA, PERIYAR TIGER RESERVE, KERALA¹

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(With one text-figure)

Key words: *Noemacheilus menoni* sp. nov., Western Ghats, Periyar

Noemacheilus menoni is described as a new species of fish from the Periyar river of the High Ranges of the Western Ghats of Kerala State, South India, from five specimens. It is characterised by a complete lateral line, an irregular reticulation of dark blotches and bands with light or creamy inter-spaces on the body, and three narrow bands on the caudal fin.

INTRODUCTION

This genus consists of a group of species which are remarkably similar in general morphology. Environmental conditions tend to produce similar characters and it is probable that the great resemblance between the various species of this genus is due to a similarity in their environment. The usual environment of rapid running water of these loaches is full of stress and the animals that live in such a habitat have to adjust constantly to any fluctuation in the microclimate. Their body has become more and more cylindrical, with the fins becoming smaller and compact to facilitate their living amongst pebbles and shingle in swift running water (Menon, 1987).

In addition to the new species described here, the following five species are recognised from the Periyar River: (1) *Noemacheilus denisoni denisoni* Day (2) *Noemacheilus keralensis* (Rita & Nalbant), (3) *Noemacheilus triangularis* Day. (4) *Noemacheilus guentheri* Day and (5) *Noemacheilus evezardi* Day.

In the course of our studies on the fishes of Periyar river in Kerala State, South India, five specimens were obtained which are distinct from other species described so far. They are described here as a new species.

MATERIAL AND METHODS

The material examined in this study

¹Accepted September, 1997

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consists of 5 specimens measuring 46 to 54.4 mm SL collected from the fast flowing Periyar at Malappara about 17 km above the Periyar Lake, between 9° 16' and 9° 40' N lat. and between 76° 55' and 77° 25' long. The description is based on measurements with dial calipers. Data are presented as percentages of standard length (SL) and head length (HL), with the range followed by the mean in parentheses. One example, not included in the present study has been deposited with ZSI, Madras.

Noemacheilus menoni sp. nov. (Fig. 1)

Diagnosis: A species of *Noemacheilus* having 8 branched rays in the dorsal fin, lateral line complete, 3 pairs of barbels, and dorsal and caudal fins with dark spots (Fig. 1).

Holotype: ZSI Calicut V/F/1018, 54.4 mm SL. Collected from Malappara in Periyar river on March 2, 1997 by the authors.

Paratypes: 4 specimens ZSI, Calicut V/F/1019, 46-49 mm SL. Same data as holotype. One specimen deposited at ZSI, Madras. No. F. 5255 ZSI/SRS collected from the same locality in February 1996.

Description: Based on 5 specimens.

D.3/8, A.2/5, P.1/11, V.1/6/1, C.19 Lateral line complete.

Body cylindrical, eyes small, nostrils close to each other, anterior tubular. Mouth semicircular. Barbels well developed. Dorsal fin inserted almost equidistant between tip of snout and caudal fin base. Caudal fin forked.

Depth body 12.2-14.5 (M = 13.16) % SL, length of head 19.5-23.9 (M=21.52) %, snout

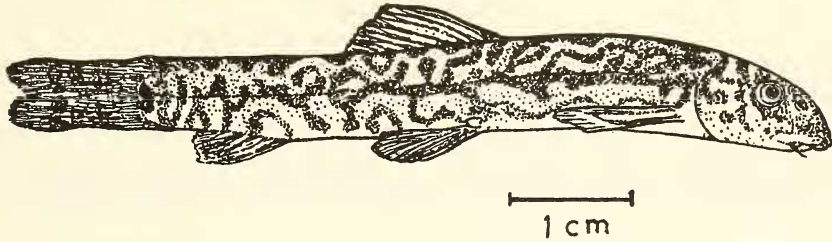


Fig. 1: Lateral view of *Noemacheilus menoni*, sp. nov.

length 7.3-8.6 (M=7.96) % SL, 32.7-41.6 (M=37.24) % HL. Eye shorter than snout, its diameter 9.9-17.7 (M=13.8) % HL and 38.4-56.6 (M=47.5) % inter-orbital width. 2 pairs of barbels are shorter than eye, its length 8.4-14.5 (M=12.2%) % HL second pair of rostral barbels are longer than eye, its length 20-26.7 (M=22.32) % HL, Maxillary barbels are almost equal to second pair of rostral barbels, its length 20-26.7 (M=22.94) % HL.

Caudal peduncle length 12.2-14.5 (M=12.94) %, its least height 40.0-50.0 (M=44.86) % HL, 71.4-76.6 (M=74.28) % of its own length.

Squamation: Lateral line complete, well distinguishable up to end of base of anal fin. Scales small and imbricate except on ventral side of body.

Fins: Dorsal origin between tip of snout and base of caudal, its height less than length of head, 14.2-15.8 (14.88) % SL, height of anal fin 49.1-60 (M=54.34) % HL. Pectoral fin smaller than head, length of pectoral 16.3-18.7 (M=17.12) % SL. Pelvic fin smaller than head and pectoral fin, its length 12.5-14.5 (M=13.54) % SL. Caudal fin forked, longer than head, lobes somewhat pointed, predorsal distance 49.3-52.9 (M=51.34) % SL. Pre-pelvic distance 48.8-54.1 (M=51.62) % SL; distance between origin of pectoral and pelvic fins 22.9-33.0 (M=27.9) % SL, pelvic to anal distance 23.7-25.7 (M=24.62) % SL.

Coloration: Body with irregular dark blotches on back, sides marked by irregular

reticulation of dark blotches and wavy bands with light or creamy interspaces; blotches and bands being more prominent on the upper half. Dorsal and caudal fins have three narrow bands each, anal and pelvic have one each; caudal fin has a black blotch at its base.

Distribution: The Periyar River at Malappara, Kerala, South India.

Remarks: More than 450 species are described under *Noemacheilus* (Kottelat, 1982). These species are quite varied and diverse, and form several recognisable groups or subgenera. These fishes inhabit hill streams and are restricted to South China, Southeast Asia, Baluchistan, Western Iran, South Anatolia and Lake Tsana in N.E. Africa.

The species *N. menoni* described here appears to be closely related to *N. triangularis* Day occurring in the Western Ghats of Kerala (Kallar, Periyar, Pamba and Bharatapuzha drainage) and Tamil Nadu (Thambraparni drainage). Both have 8 branched rays in the dorsal fin, slightly tubular anterior nostrils without nasal barbels, forked caudal and an irregular pattern of dark bands, bars or blotches characteristic of the subgenus *Mesonoemacheilus*. However, the new species can be separated from *N. triangularis* by the irregular reticulation of dark blotches and wavy bands with light or creamy interspaces as against the six or seven oblique yellow bands edged with black of *N. triangularis*. *N. guentheri* Day, another related species, can be separated by the 2 or 3 rows of large yellow spots edged with black on its body.

NEW DESCRIPTIONS

ACKNOWLEDGEMENTS

We are grateful to Dr. A.G.K. Menon for his help, suggestions and comments on this paper. Our sincere thanks are due to Mr. Radhakrishnan, Deputy Director, Mr. K.C. Gopi and Dr. P.M. Sureshan Scientists, ZSI Calicut and Dr. K. Remadevi, Scientist, ZSI Madras for their kind help in preparing the paper and for their suggestions. Help and co-operation received from Mr. O.P. Kaler, IFS, Wildlife Preservation Officer, Periyar Tiger Reserve is gratefully acknowledged.

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